47384

CORRES. CONTROL
OUTGOING LTR NO.

DOE ORDER # 4700.1
RF 11248

EG&G ROCKY FLATS

DIST.	ltr	ENC
AMARAL, M.E.		
BURLINGAME, A.H.		
BUSBY, W.S.		
BRANCH, D.B.		
CARNIVAL, G.J.		
DAVIS, J.G.		
FERRERA, D.W.		
FRAY, R.E.		
GEIS, J.A.		
GLOVER, W.S.		
GOLAN, P.M.		
HANNI, B.J.		
HARMAN, L.K.		
HEALY, T.J.		
HEDAHL, T.		
HILBIG, J.G.		
HUTCHINS, N. M.		
JACKSON, D.T.		
KELL, R.E.		
KUESTER, A.W.		
MARX, G.E.		
McDONALD, M.M.		
MCKENNA, F.G.		
MONTROSE, J.K.		
MORGAN, R.V.		
POTTER, G.L.		
PIZUTTO, G.L.		
RISING, T.L.		
SANDLIN, N.B.		
SCHWARTZ, J.K.		
SETLOCK, G.H.		
STEWART, D.L.		
STIGER, S.G.	X	
TOBIN, P.M.		
VOORHEIS, G.M.		
WILSON, J.M.		
Primrose, A. L.	X	
Dallas, J	X	
Lane, Jay	X	
Busby WS	X	
Peterman BD	X	
Ray Rich	X	
Schubbe DL	X	
CORRES CONTROL	X	X
ADMIN RECORD/080		
TRAFFIC		
PATS/T130G		
CLASSIFICATION:		
UCNI		
UNCLASSIFIED	X	X
CONFIDENTIAL		
SECRET		

AUTHORIZED CLASSIFIER SIGNATURE

11-8-94
DATE

IN REPLY TO RFP CC NO:

ACTION ITEM STATUS
☐ OPEN ☐ CLOSED
☐ PARTIAL

LTR APPROVALS:
ORIG & TYPIST INITIALS

tjr

RF-46469 (Rev. 07/94)

EG&G ROCKY FLATS, INC.
ROCKY FLATS PLANT, P.O. BOX 464, GOLDEN, COLORADO 80402-0464 • (303) 966-7000

November 10, 1994

94-RF-11248

Jessie M. Roberson
Assistant Manager for
Environmental Restoration Division
DOE/RFFO

TRANSMITTAL OF THE CLOSURE STRATEGY PAPER FOR OPERABLE UNIT (OU) 15: INSIDE BUILDING CLOSURES – SGS-590-94

Action: Review and provide comments on the Closure Strategy Paper for Operable Unit 15.

The purpose of this correspondence is to transmit a copy of the Closure Strategy Paper for Operable Unit 15 to the Department of Energy (DOE) for review. The enclosed paper was prepared in response to a verbal agreement made during an October 5, 1994 meeting between the DOE, the Environmental Protection Agency and the Colorado Department of Public Health and Environment regarding OU 15.

If you have any questions regarding the enclosed paper please contact Rich Ray at extension 8557 or Dennis Schubbe at extension 8709.

for S. G. Stiger, Director
Environmental Restoration Program Division

DLS:tjr

Orig. and 1 cc – J. M. Roberson

Enclosure:
As Stated

cc:
D. A. Brockman – DOE/RFFO
W. Fitch – " "
F. R. Lockhart – " "
R. J. Schassburger – " "
M. N. Silverman – " "

REVIEWED FOR CLASSIFICATION/UCNI
BY G. L. Gotlieb
DATE 11-17-94

CLOSURE STRATEGY PAPER
FOR
OPERABLE UNIT NO. 15
INSIDE BUILDING CLOSURES

I. EXECUTIVE SUMMARY

Based on the results of fieldwork completed per the approved Phase I RCRA Facility Investigation/Remedial Investigation (RFI/RI) Work Plan for Operable Unit (OU) 15 and presented within the Draft Phase I RFI/RI Report for OU 15; No Action is necessary to be protective of human health and the environment at five of the six OU 15 IHSSs. The exception is the Original Uranium Chip Roaster, IHSS 204 (chip roaster), from which worker exposure could exceed the five (5) roentgen equivalent man (rem) per year standard promulgated by the Department of Energy (DOE), Atomic Energy Commission (AEC), and Nuclear Regulatory Commission (NRC).

The remedy proposed within the Proposed Plan (PP) and Draft Modification of the Colorado Hazardous Waste Permit (CHWP) for Rocky Flats Environmental Technology Site (RFETS) for OU 15 should be "No Action" to permanently close out five of OU 15 IHSSs. The chip roaster should be removed from the IAG schedule for OU 15, its future use for waste treatment evaluated, and its closure addressed as part of building 447 National Conversion Pilot Program (i.e. economic development) and/or Decontamination and Decommissioning (D&D).

II. INTRODUCTION

The purpose of this paper is to evaluate various options for the closure of IHSSs located within OU 15: Inside Building Closures. All of the OU 15 IHSSs are located within buildings as listed below:

IHSS 178	Building 881, Drum Storage Area (Room 165)
IHSS 179	Building 865, Drum Storage Area (Room 145)
IHSS 180	Building 883, Drum Storage Area (Room 104)
IHSS 204	Building 447, Unit 45, Original Uranium Chip Roaster (Rooms 32 and 502)
IHSS 211	Building 881, Unit 26, Drum Storage Area (Room 266B)
IHSS 217	Building 881, Unit 32, Cyanide Bench Scale Treatment (Room 131C)

The results of the Phase I RFI/RI investigation can be summarized as follows:

1. All six (6) of the OU 15 IHSSs meet the clean closure performance standards specified within the CHWP for RFETS;

2. No evidence exists to indicate that releases of hazardous or radioactive constituents have occurred from OU 15 IHSSs to the environment outside of buildings;

3. No evidence exists to indicate that an imminent threat of a release of hazardous or radioactive constituents from OU 15 IHSSs to the environment exists;

4. The IHSSs investigated are in compliance with the Applicable or Relevant and Appropriate Requirements (ARARs) specified within the approved Phase I RFI/RI Work Plan for Operable Unit (OU) 15;

5. Radiological contamination present within Building 447, Rooms 502 and 32, which resulted from the operation of the chip roaster, could potentially cause worker exposure to exceed the five (5) rem per year standard promulgated by the DOE, AEC, and NRC; and

6. Beryllium concentrations detected within IHSS 179 and IHSS 180 are the result of past building operations.

Preparation of a Closure Strategy Paper was agreed upon by DOE, CDPHE and EPA during an October 5, 1994 meeting. It was agreed that this strategy paper be prepared to document the decision making process with regard to remedy selection for OU 15 IHSSs. Specifically, the basis on which OU 15 decisions are made must be documented within the Administrative Record for OU 15 to support the Corrective Action Decision/Record Of Decision (CAD/ROD) for OU 15 and ensure that the remedy selected for OU 15 is not construed to be arbitrary and capricious.

III. OU 15 CLOSURE STRATEGY

RCRA Closure of OU 15

The RCRA closure strategy presented herein includes IHSSs 178, 179, 180, 211 and 217. The chip roaster is **not** included within this discussion of RCRA closure. Since the five (5) IHSSs listed above meet the clean closure performance standards specified within the CHWP for RFETS, these IHSSs can be clean closed with respect to RCRA without taking corrective action. Therefore, evaluation of corrective action under RCRA is not necessary. In order to proceed with RCRA clean closure DOE should request that the CDPHE (i.e., the State) modify the CHWP for RFETS. Modification of the CHWP should be coordinated with CERCLA closure by proceeding in a manner similar to that used for closure of OU 16.

CERCLA Closure of OU 15

The CERCLA closure strategy presented herein includes IHSSs 178, 179, 180, 211 and 217. The chip roaster is **not** included within this discussion of CERCLA closure strategy. IHSSs 178, 179, 180, 211 and 217 are in compliance with the five (5) rem per year standard promulgated by the DOE, AEC, and NRC based on the Draft Phase I RFI/RI Report for OU 15. In addition, IHSSs 178, 179, 180, 211 and 217 meet the ARARs specified within the approved Phase I RFI/RI Work Plan and no source of contamination exists within these IHSSs. Beryllium concentrations within IHSSs 179 and 180 are the result of building operations not releases from OU 15 IHSSs. Beryllium is considered a building issue and will be addressed as such through building economic development or D&D.

Since no source of contamination exists from OU 15 IHSSs; there is no complete pathway for exposure and there is no risk associated with the IHSSs. Evaluation of remedial alternatives is not necessary since IHSSs 178, 179, 180, 211 and 217 are already in a protective state with regard to protection of workers, the environment and the public. Since OU 15 IHSSs are already in a protective state, "No Action" under CERCLA is appropriate. In order to proceed with CERCLA closure of IHSSs 178, 179, 180, 211 and 217; a draft PP should be prepared proposing a "No Action" alternative. CERCLA closure should be coordinated with RCRA closure in a manner similar to that used for closure of OU 16.

Original Uranium Chip Roaster, IHSS 204

In order for remedial alternatives to be evaluated for the chip roaster, the future use of the chip roaster must be determined. Until the future use of the chip roaster is determined the chip roaster should be removed from the IAG schedule for OU 15. Continued use of the chip roaster as a waste treatment unit and closure of the chip roaster is discussed below.

Continued chip roaster use as a waste treatment unit

The chip roaster is the only mixed waste treatment unit at RFETS currently permitted within the CHWP for oxidation of uranium contaminated with RCRA regulated constituents. Uranium contaminated with RCRA regulated constituents (e.g. solvents, etc.) are presently buried within trenches identified as IHSSs within OU 2. It is anticipated that the OU 2 trenches will have to be remediated and the contaminated uranium waste removed for treatment or storage. The exact volume of uranium buried in OU 2 trenches is not known; however, the Historical Release Report for RFETS references 125 drums. The use of the chip roaster for treatment of OU 2 uranium should be addressed as part of the Corrective Measures Study/Feasibility Study (CMS/FS) for OU 2.

Non-RCRA regulated uranium wastes could still be treated (i.e., oxidized) using the chip roaster. During the oxidation process, the chip roaster affectively destroys RCRA regulated substances. After proper characterization, the resulting uranium oxide waste would probably not have to be managed as a RCRA regulated waste. This has already been demonstrated based on the results of an oxide sampling program initiated during 1993. The volume of non-RCRA regulated uranium wastes currently stored at RFETS is not known (i.e., approximately 20 drums has been estimated). The future use of the chip roaster for treatment of RFETS uranium waste should be evaluated by RFETS Waste Operations and/or Waste Programs.

Because of its pyrophoric nature, handling and shipment of the uranium waste may be difficult. The continued capability to oxidize the uranium at RFETS as part of the ongoing environmental restoration process would be very beneficial if treatment is required for shipping and/or safe handling of the waste. Based on this information, it is recommended that the chip roaster be removed from the IAG schedule for OU 15 until its continued use as a permitted treatment unit can be evaluated.

Closure of the chip roaster

When closure of the chip roaster is pursued, closure should be proceed as part of building 447 National Conversion Pilot Program (NCPP) and/or D&D. Given that the chip roaster already meets RCRA clean closure performance standards, only CERCLA closure will have to be addressed unless the chip roaster is used to treat mixed waste (i.e., OU 2 waste treatment). However, the chip roaster is currently included within the Interim Measures (IM) / Interim Remedial Action (IRA) document prepared as a part of NCPP economic development plan. It is proposed within the IM/IRA that the chip roaster be salvaged for scrap metal and associated rooms be decontaminated. The IM/IRA process can be utilized to meet the substantive and administrative requirements for closure under RCRA and CERCLA. Based on this information, the chip roaster should be removed from the IAG schedule for OU 15 and closure addressed as a part of the NCPP and/or D&D of building 447 when appropriate.

IV. SUMMARY

Based on the results of fieldwork completed per the approved Phase I RFI/RI Work Plan for OU 15 and presented within the Draft Phase I RFI/RI Report for OU 15; a "No Action" remedy is protective of human health and the environment for five (5) of the six (6) OU 15 IHSSs. The "No Action" remedy should be proposed for IHSSs 178, 179, 180, 211 and 217.

The chip roaster should be removed from the IAG schedule for OU 15. Evaluation of the chip roaster for treatment of OU 2 uranium waste should be addressed as part of the CMS/FS for OU 2. The future use of the chip roaster for treatment of RFETS uranium waste should be evaluated by RFETS Waste Operations and/or Waste Programs. Closure of the chip roaster should be addressed as part of building 447 National Conversion Pilot Program (i.e. economic development) and/or D&D and should be coordinated with future use of the chip roaster.